



Course Curriculum for the Master of Clinical Dentistry Degree/ Restorative Dentistry

Course Curriculum for the Master of Clinical Dentistry Degree /Restorative Dentistry is awarded by the Faculty of Graduate Studies at Jordan University of Science and Technology (JUST) upon the fulfillment of the following requirements:

1. Compliance with the J.U.S.T. Master Degree regulations approved by the Council of Deans.
2. Successful completion of (45) credit hours.

First: Compulsory Requirements (32) hours as follows:

A. Theoretical Requirements (9) credit hours as follows: -

Course Code	Course Name	Credit Hours
Dent 709	Research Methodology and Biostatistics	3
Dent 714	Advanced Restorative Dentistry 1	2
Dent 715	Advanced Restorative Dentistry 2	2
Dent 716	Advanced Restorative Dentistry 3	2

B. Clinical Requirements (23) credit hours as follows:-

Course Code	Course Name	Credit Hours
Dent 711L	Laboratory Training in Restorative Dentistry	1
Dent 711A	Clinical Training in Restorative Dentistry 1	1
Dent 711B	Clinical Training in Restorative Dentistry 2	3
Dent 711C	Clinical Training in Restorative Dentistry 3	3
Dent 712A	Clinical Training in Restorative Dentistry 4	3
Dent 712B	Clinical Training in Restorative Dentistry 5	3
Dent 712C	Clinical Training in Restorative Dentistry 6	3
Dent 713A	Clinical Training in Restorative Dentistry 7	3
Dent 713B	Clinical Training in Restorative Dentistry 8	3
Dent 713C	Clinical Training in Restorative Dentistry 9	0

Second:- Elective Theory Requirements (4) credit hours as follows:

Course Code	Course Name	Credit Hours
Dent 702	Advanced Oral and Maxillofacial Radiology	1
Dent 705	Occlusion and Temporomandibular Joint	1
Dent 717	Advanced Dental Materials Science in Restorative Dentistry	1
Dent 718	Current Topics in Restorative Dentistry	2
Dent 739	Oral and Dental Traumatology	1
Dent 747	Biology of Dentine Pulp Complex	2
Dent 767	Geriatric Dentistry	2
Dent 788	Medical Problems in Dentistry	2

Third: Master Thesis (Dent 799): total of 9 credit hours as follows:

Course Code	Course Name	Credit Hours
Dent 799 A	Master Thesis	9
Dent 799 B	Master Thesis	6
Dent 799 C	Master Thesis	3
Dent 799 D	Master Thesis	0

Course Description

Restorative Dentistry

Dent 702 Advanced Oral and Maxillofacial Radiology:)1 Credit Hour)

This course consists of a series of lectures that deal with the fundamentals of the production and interaction of x-rays. This is followed by the basics of radiation biology and radiation protection, production of the radiograph (physics, chemistry and technique), vision and perception. Additionally, the appearance of normal and pathologic tissues and structures on the radiographs will be covered. The various imaging methods of investigation such as Cone Beam CT and MRI, etc will be also discussed.

Dent 705 Occlusion and Temporomandibular Joint: (1 Credit Hour)

This course is designed to provide students with a clear picture of how the masticatory system functions and the role of a harmonious occlusion in maintaining the health of this system. In addition, it aims to provide students with the basic knowledge of anatomy of the masticatory system, mandibular movement, determinants of occlusion and occlusal schemes. Occlusal diseases and masticatory system dysfunctions will also be covered in this course to help students diagnose and treat patients who suffer from these diseases.

Dent 709 Research Methodology and Biostatistics: (3 Credit Hours)

This course describes the scientific methods of conducting research and study design. In addition, it aids students in planning clinical and laboratory studies as well as the critical evaluation of scientific studies. Students will learn methods of data collection, the use of the right statistical tests for results analysis in scientific research. They will also learn how to interpret results and draw conclusions

Dent 711L laboratory Training in Restorative Dentistry: (1 Credit Hour)

This practical course aims to improve the basic preclinical training in restorative dentistry that are deemed necessary for establishing high standards skills which are required in subsequent clinical sessions.

Dent 711A Clinical Training in Restorative Dentistry 1: (1 Credit Hour)

During this course section, the student will learn the skills of examining patients, diagnosing different conditions and forming the appropriate treatment plans for patients with comprehensive restorative needs. They will also have opportunity to start the control phase of their patients and provide treatment for simple restorative cases (e.g. Good quality direct restorations, RCT, post/core and crowns, etc.).

Dent 711B Clinical Training in Restorative Dentistry 2: (3 Credit Hour)

In this clinical course students will continue examining and planning cases of comprehensive restorative nature including simple fixed partial dentures and start executing the comprehensive treatment plans that were initiated during the previous semester.

Dent 711C Clinical Training in Restorative Dentistry 3: (3 Credit Hours)

This is course is a carry-on of the first two courses. Students are expected to finish most of their first year cases by the end of this course.

Dent 712 A, B, C Clinical Training in Restorative Dentistry 4,5,6: (3,3,3 Credit Hours, respectively)

The objective of these clinical courses is to develop further the comprehensive treatment planning and clinical skills required to manage advanced restorative cases. Students will provide treatment for advanced restorative cases that includes management of wear, all ceramic restorations including veneers and onlays, other esthetic enhancement procedures for e.g. enamel micro/macro-abrasion, external and internal bleaching, esthetic recontouring, etc.

Students will also learn esthetic parameter analysis including those of the smile and develop treatment plans to enhance smile esthetics when indicated.

Dent 713 A, B, C Clinical Training in Restorative Dentistry 7,8,9: (3,3,0 Credit Hours, respectively)

These consecutive courses will serve the objective of instilling more confidence in their clinical skills and improve further their capabilities to diagnose complicated cases and take opinion of other relevant specialists.

Students will be trained to evaluate the results of the treatments that were given to their patients by measuring the patient's satisfaction with the outcome of the treatment. This will prepare the students to work on their own as specialists in restorative dentistry. Students will be given the opportunity for treating very advanced cases including the provision of the prosthetic part of simple implants.

At the end of the term, students should submit the login books of a specific number of cases that were approved to be treated by them.

Dent 714 Advanced Restorative Dentistry 1: (2 Credit Hours)

The aim of this course is to provide students with the basic knowledge required to examine the patient, provide the right diagnosis and form the appropriate treatment plan based on patient needs. The lectures of the course will cover diagnostic tools, caries management, endodontic treatments, and restoration of endodontically treated teeth.

Dent 715 Advanced Restorative Dentistry 2: (2 Credit Hours)

This course will be a continuation for Advanced Restorative Dentistry 1. Fundamentals of tooth preparation and pulp protection will be discussed in detail along with all contemporary direct restorative procedures. An emphasis will be given on the current dental materials and techniques and their indications. Moreover, conservative esthetic enhancement procedures will be discussed in this course including bleaching, enamel micro/macro-abrasion and esthetic tooth recontouring.

Dent 716 Advanced Restorative Dentistry 3: (2 Credit Hours)

This course will be a continuation for Advanced Restorative Dentistry 2. The course consists of many lectures on the domains of restorative dentistry. It will provide students with advanced knowledge regarding treating patient in all aspects of restorative dentistry. It covers advanced endodontic treatment in anterior teeth; esthetic rehabilitation of anterior teeth; porcelain laminate veneers, indirect ceramic restoration (inlay, onlay); crown and fixed partial denture planning, design and preparation principles; and single tooth implant restorations.

Dent 717 Advanced Dental Materials Science in Restorative Dentistry: (1 Credit Hour)

The aim of this course is to provide students with updated knowledge about dental materials used in all aspects of restorative dentistry including dental amalgam, glass ionomer, dental adhesion, resin composite, dental cements, dental alloys, dental ceramics, endodontic materials, bleaching materials and dental implants related materials, all of which is necessary for establishing high standards of treatment needs for patients.

Dent 718 Current topics in Restorative Dentistry: (2 Credit Hours)

The aim of this course is to provide students with up to date literature related to all domains of restorative dentistry in form of literature review sessions.

Dent 739 Oral and Dental Traumatology: (1 Credit Hour)

This course covers all aspects related to oral and dental trauma including epidemiology, diagnosis and management of trauma as well as diagnosing and managing non-accidental injuries.

Dent 747 Biology of Dentine Pulp Complex: (2 Credit Hours)

This course provides a detailed description of dental pulp development, composition, structure, function and its interaction with other tissues during health and disease. It also covers the structure of dentine, chemical and physical properties and its relation with dental pulp. Detailed description of pulpal response to tooth injury and infection will be provided. In addition, pulpal inflammation is covered thoroughly. Detailed review on the causes and mechanisms of dental pain is also covered in this course.

Dent 767 Geriatric Dentistry: (2 Credit Hours)

This is a theoretical course that covers information related to diagnosis and treatment of dental and oral diseases affecting the elderly, in addition to management of loss of teeth, and the need for special care for this age group of patients.

Dent 788 Medical Problems in Dentistry: (2 Credit Hours)

This course is designed to bring the student to the current knowledge on the general diseases that the dental patient might suffer from and their signs in the oral and maxillofacial region and their effect on dental and oral treatment.

Dent 799 Master Thesis: (9 Credit Hours) (A,B,C,D) (9,6,3,0)

A topic for the thesis will be chosen for the student where she/he is expected to work under the supervision of one academic staff from the university. The student is expected to conduct and write up the thesis and defense his work at the end of his study.

**Study Plan
Restorative
Dentistry**

First Year

First semester

Course Code	Course Name	Credit Hours
Dent 709	Research Methodology and Biostatistics	3
Dent 711L	Laboratory Training in Restorative Dentistry	1
Dent 711A	Clinical Training in Restorative Dentistry 1	1
Dent 714	Advanced Restorative Dentistry 1	2
	Total	7

Second semester

Course Code	Course Name	Credit Hours
Dent	Elective course	1
Dent 711B	Clinical Training in Restorative Dentistry 2	3
Dent 715	Advanced Restorative Dentistry 2	2
Dent	Elective course	1
	Total	7

Third semester

Course Code	Course Name	Credit Hours
Dent 711C	Clinical Training in Restorative Dentistry 3	3
	Total	3

Second Year

First semester

Course Code	Course Name	Credit Hours
Dent 712A	Clinical Training in Restorative Dentistry 4	3
Dent 716	Advanced Restorative Dentistry 3	2
Dent	Elective course	2
	Total	7

Second semester

Course Code	Course Name	Credit Hours
Dent 712B	Clinical Training in Restorative Dentistry 5	3
Dent 799C	Master Thesis	3
	Total	6

Third semester

Course Code	Course Name	Credit Hours
Dent 712C	Clinical Training in Restorative Dentistry 6	3
Dent 799C	Master Thesis	3
	Total	6

Third Year

First semester

Course Code	Course Name	Credit Hours
Dent 713A	Clinical Training in Restorative Dentistry 7	3
Dent 799C	Master Thesis	3
	Total	6

Second semester

Course Code	Course Name	Credit Hours
Dent 713B	Clinical Training in Restorative Dentistry 8	3
Dent 799D	Master Thesis	0
	Total	3

Third semester

Course Code	Course Name	Credit Hours
Dent 713C	Clinical Training in Restorative Dentistry 9	0
Dent 799D	Master Thesis	0